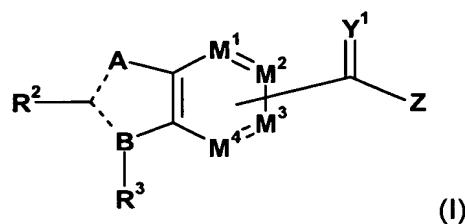


Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) An isomer, enantiomer, diastereoisomer, or tautomer of a compound, represented by formula I:



(I)

wherein

---- represents either a single or a double bond;

| **B** is -N- and **A** is =CR¹- or =N-; or

| **B** is =C- and **A** is O, S or NR¹;

R¹ is selected from the group consisting of: H, (C₁₋₆)alkyl optionally substituted with: halogen, OR¹¹, SR¹¹ or N(R¹²)₂, wherein R¹¹ and each R¹² is independently H, (C₁₋₆)alkyl, (C₃₋₇)cycloalkyl, (C₁₋₆)alkyl-(C₃₋₇)cycloalkyl, (C₁₋₆)alkyl-aryl or (C₁₋₆)alkyl-Het, said aryl or Het optionally substituted with R¹⁶⁰; or both R¹² are covalently bonded together and to the nitrogen to which they are both attached to form a 5, 6 or 7-membered saturated heterocycle;

the group -C(=Y¹)-Z is covalently linked to either M² or M³,

M¹ is CR^{4a},

M² or M³, when not linked to -C(=Y¹)-Z, is CR⁵,

M⁴ is CR^{4b},

~~and in addition one or two of the groups selected from M^1 , M^2 , M^3 and M^4 may also be N, with the proviso that the group M^2 or M^3 to which $C(=Y^1)Z$ is linked is a C atom,~~

Y^1 is O or S;

Z is defined as $NR^{N2}-SO_2-R^C$ or $NR^{N3}-SO_2-N(R^{N2})R^{N1}$, wherein R^C , R^{N1} or any heterocycle formed by R^{N1} and R^{N2} is optionally substituted with R^{60} ;

R^2 is selected from: halogen or R^{21} , wherein R^{21} is aryl or Het, said R^{21} is optionally substituted with R^{150} ;

R^3 is selected from $(C_{1-6})alkyl$, $(C_{3-7})cycloalkyl$, $(C_{1-3})alkyl-(C_{3-7})cycloalkyl$, $(C_{5-7})cycloalkenyl$, $(C_{1-3})alkyl-(C_{5-7})cycloalkenyl$, $(C_{6-10})bicycloalkyl$, $(C_{1-3})alkyl-(C_{6-10})bicycloalkyl$, $(C_{6-10})bicycloalkenyl$, $(C_{1-3})alkyl-(C_{6-10})bicycloalkenyl$, **HCy** or $(C_{1-3})alkyl-HCy$, wherein **HCy** is a saturated or unsaturated 4 to 7-membered heterocyclic group with 1 to 3 heteroatoms selected from O, S and N; said alkyl, cycloalkyl, cycloalkenyl, bicycloalkyl, bicycloalkenyl, **HCy** and alkyl-**HCy** being optionally substituted with from 1 to 4 substituents selected from: a) halogen; b) $(C_{1-6})alkyl$ optionally substituted with: - 1 to 3 substituents selected from halogen; - OR^{31} or SR^{31} wherein R^{31} is H, $(C_{1-6})alkyl$, $(C_{3-7})cycloalkyl$ or $(C_{1-3})alkyl-(C_{3-7})cycloalkyl$; or - $N(R^{32})_2$ wherein each R^{32} is independently H, $(C_{1-6})alkyl$, $(C_{3-7})cycloalkyl$ or $(C_{1-3})alkyl-(C_{3-7})cycloalkyl$; or both R^{32} are covalently bonded together and to the nitrogen to which they are attached to form a 5, 6 or 7-membered saturated heterocycle; c) OR^{33} or SR^{33} wherein R^{33} is H, $(C_{1-6})alkyl$, $(C_{3-7})cycloalkyl$ or $(C_{1-3})alkyl-(C_{3-7})cycloalkyl$; d) $N(R^{35})_2$ wherein each R^{35} is independently H, $(C_{1-6})alkyl$, $(C_{3-7})cycloalkyl$ or $(C_{1-3})alkyl-(C_{3-7})cycloalkyl$; or both R^{35} are covalently bonded together and to the nitrogen to which they are attached to form a 5, 6 or 7-membered saturated heterocycle;

R^{4a} , R^{4b} , R^5 each are independently H or defined as R^{150} ;

R^{60} is defined as 1 to 4 substituents independently selected from:

AMENDMENT

U.S. Appln. No. 10/755,544

- 1 to 3 substituents selected from halogen;
- one of each substituent selected from: OPO_3H , NO_2 , cyano, azido, $\text{C}=\text{NH}\text{NH}_2$, $\text{C}=\text{NH}\text{NH}(\text{C}_{1-6})\text{alkyl}$ or $\text{C}=\text{NH}\text{NHCO}(\text{C}_{1-6})\text{alkyl}$, SO_3H ; and
- 1 to 3 substituents selected from:
 - a) $(\text{C}_{1-6})\text{alkyl}$, $(\text{C}_{3-7})\text{cycloalkyl}$, $(\text{C}_{3-7})\text{spirocycloalkyl}$ optionally containing 1 or 2 heteroatoms selected from N, O and S; $(\text{C}_{2-6})\text{alkenyl}$, $(\text{C}_{2-8})\text{alkynyl}$, $(\text{C}_{1-6})\text{alkyl}-(\text{C}_{3-7})\text{cycloalkyl}$, all of which optionally being substituted with R^{150} ;
 - b) OR^0 ;
 - c) OC(O)R^0 ;
 - d) SR^0 , $\text{SO}_2\text{R}^{\text{C}}$, $\text{SO}_2\text{N}(\text{R}^{N2})\text{R}^{N1}$, $\text{SO}_2\text{N}(\text{R}^{N2})\text{C(O)R}^{\text{C}}$, $\text{CONR}^{N3}\text{SO}_2\text{N}(\text{R}^{N2})\text{R}^{N1}$, or $\text{CONR}^{N2}\text{SO}_2\text{R}^{\text{C}}$;
 - e) $\text{N}(\text{R}^{N2})\text{R}^{N1}$, $\text{N}(\text{R}^{N2})\text{COOR}^{\text{C}}$, $\text{N}(\text{R}^{N2})\text{SO}_2\text{R}^{\text{C}}$ or $\text{N}(\text{R}^{N1})\text{OR}^0$;
 - f) $\text{N}(\text{R}^{N2})\text{COR}^{\text{C}}$;
 - g) $\text{N}(\text{R}^{N3})\text{CON}(\text{R}^{N2})\text{R}^{N1}$;
 - h) $\text{N}(\text{R}^{N3})\text{COCOR}^{\text{C}}$, $\text{N}(\text{R}^{N3})\text{COCOOR}^0$, $\text{N}(\text{R}^{N3})\text{COCON}(\text{R}^{N2})\text{OR}^0$, or $\text{N}(\text{R}^{N3})\text{COCON}(\text{R}^{N2})\text{R}^{N1}$;
 - i) COR^0 ;
 - j) COOR^0 ;
 - k) $\text{CON}(\text{R}^{N2})\text{R}^{N1}$;
 - l) aryl, Het, $(\text{C}_{1-4})\text{alkyl-aryl}$ or $(\text{C}_{1-4})\text{alkyl-Het}$, all of which optionally being substituted with R^{150} ;

wherein said R^{N1} , R^{C} and/or R^0 are optionally substituted with R^{150} as defined,

R^{150} is defined as 1 to 4 substituents independently selected from:

- 1 to 3 substituents selected from halogen;
- one of each substituent selected from: OPO_3H , NO_2 , cyano, azido, SO_3H , $\text{C}=\text{NH}\text{NH}_2$, $\text{C}=\text{NH}\text{NH}(\text{C}_{1-6})\text{alkyl}$ or $\text{C}=\text{NH}\text{NHCO}(\text{C}_{1-6})\text{alkyl}$; and
- 1 to 3 substituents selected from:
 - a) $(\text{C}_{1-6})\text{alkyl}$, $(\text{C}_{3-7})\text{cycloalkyl}$, $(\text{C}_{3-7})\text{spirocycloalkyl}$ optionally containing 1 or 2 heteroatoms selected from N, O and S; $(\text{C}_{2-6})\text{alkenyl}$, $(\text{C}_{2-8})\text{alkynyl}$, $(\text{C}_{1-3})\text{alkyl}-(\text{C}_{3-7})\text{cycloalkyl}$, all of which optionally substituted with R^{160} ;
 - b) OR^0 ;
 - c) OC(O)R^0 ;
 - d) SR^0 , $\text{SO}_2\text{R}^{\text{C}}$, $\text{SO}_2\text{N}(\text{R}^{N2})\text{R}^{N1}$ or $\text{SO}_2\text{N}(\text{R}^{N2})\text{C(O)R}^{\text{C}}$;
 - e) $\text{N}(\text{R}^{N2})\text{R}^{N1}$, $\text{N}(\text{R}^{N2})\text{COOR}^{\text{C}}$, $\text{N}(\text{R}^{N2})\text{SO}_2\text{R}^{\text{C}}$ or $\text{N}(\text{R}^{N1})\text{OR}^0$;
 - f) $\text{N}(\text{R}^{N2})\text{COR}^{\text{C}}$;
 - g) $\text{N}(\text{R}^{N3})\text{CON}(\text{R}^{N2})\text{R}^{N1}$;

AMENDMENT
U.S. Appln. No. 10/755,544

- h) $N(R^{N3})COCOR^C$, $N(R^{N3})COCOOR^O$, $N(R^{N3})COCON(R^{N2})OH$,
 $N(R^{N3})COCON(R^{N2})O(C_{1-4})alkyl$ or $N(R^{N3})COCON(R^{N2})R^{N1}$;
- i) COR^O ;
- j) $COOR^O$;
- k) tetrazole, triazole, $CONR^{N2}SO_2R^C$, $CONR^{N3}-SO_2N(R^{N2})R^{N1}$ or $CON(R^{N2})R^{N1}$;
wherein said R^{N1} , R^C and/or R^O are optionally substituted with R^{160} as defined;

R^{160} is defined as 1, 2 or 3 substituents independently selected from:

- 1, 2 or 3 fluorine substituents; and
- one of each substituent selected from tetrazole, triazole, chlorine, bromine, iodine, CN, nitro, $(C_{1-4})alkyl$, OCF_3 , SCF_3 , CF_3 , $COOR^{161}$, SO_3H , SR^{161} , SO_2R^{163} , OR^{161} , $N(R^{162})_2$, $SO_2N(R^{162})_2$, $SO_2NR^{162}COR^{162}$, $NR^{162}SO_2R^{163}$, $-NR^{161}-CO-COOR^{161}$, $-NR^{161}-CO-CO(NR^{162})_2$, $-CONR^{161}SO_2R^C$, $CONR^{161}-SO_2N(R^{162})_2$ or $-SO_2-NR^{161}-COR^C$, $NR^{162}COR^{162}$ or $CON(R^{162})_2$, wherein R^{161} , R^{163} and each R^{162} is independently $(C_{1-4})alkyl$, $(C_{3-7})cycloalkyl$ or $(C_{1-3})alkyl-(C_{3-7})cycloalkyl$; and R^{161} and each R^{162} may each independently also be H; or both R^{162} are covalently bonded together and to the nitrogen to which they are attached to form a 5, 6 or 7-membered saturated heterocycle;

R^O , R^C are independently defined as $(C_{1-6})alkyl$, $(C_{3-7})cycloalkyl$, $(C_{1-4})alkyl-(C_{3-7})cycloalkyl$, $(C_{2-6})alkenyl$, aryl, **Het**, $(C_{1-4})alkyl-aryl$, or $(C_{1-4})alkyl-Het$; or R^O is also optionally defined as H.

R^{N1} is H, $(C_{1-6})alkyl$, $(C_{3-7})cycloalkyl$, $(C_{1-4})alkyl-(C_{3-7})cycloalkyl$, $(C_{2-6})alkenyl$, aryl, **Het**, $(C_{1-4})alkyl-aryl$, $(C_{1-4})alkyl-Het$; and

R^{N2} , R^{N3} , R^{N4} are independently H, CH_3 , $(C_{2-6})alkyl$, $(C_{3-6})cycloalkyl$, $(C_{1-4})alkyl-(C_{3-6})cycloalkyl$; all of which being optionally substituted with halogen, carboxy or $(C_{1-6})alkoxycarbonyl$; and/or wherein said alkyl, cycloalkyl or alkylcycloalkyl is optionally substituted with hydroxy, $(C_{1-6})alkyl$, $(C_{1-6})alkoxy$, amino, $-NH(C_{1-4})alkyl$ and/or $-N((C_{1-4})alkyl)_2$; or

in the case

- a) of a group $N(R^{N2})R^{N1}$ the substituents R^{N2} and R^{N1} ; or
- b) of a group $NR^{N3}-N(R^{N2})R^{N1}$ the substituents R^{N3} and R^{N1} , or R^{N2} and R^{N1} ;
may be covalently bonded together to form a 4-, 5-, 6- or 7-membered saturated or unsaturated N-containing heterocycle or a 8-, 9-, 10- or 11-membered N-containing

AMENDMENT
U.S. Appln. No. 10/755,544

heterobicycle, each optionally having additionally from 1 to 3 heteroatoms selected from O, N, and S;

wherein **Het** is defined as a 4-, 5-, 6- or 7-membered heterocycle having 1 to 4 heteroatoms selected from O, N and S, or a 8-, 9-, 10- or 11-membered heterobicycle having 1 to 5 heteroatoms selected from O, N and S;

or a salt thereof.

2. (currently amended) The compound according to claim 1, wherein

----- represents either a single or a double bond;

| **B** is -N- and **A** is CR^1 or $=N-$; or

| **B** is $=C-$ and **A** is Θ , S or NR^1 ;

R^1 is selected from the group consisting of: H, (C_{1-6})alkyl optionally substituted with: halogen, OR^{11} , SR^{11} or $N(R^{12})_2$, wherein R^{11} and each R^{12} is independently H, (C_{1-6})alkyl, (C_{3-7})cycloalkyl, (C_{1-6})alkyl-(C_{3-7})cycloalkyl, (C_{1-6})alkyl-aryl or (C_{1-6})alkyl-**Het**, said aryl or **Het** optionally substituted with R^{160} ; or both R^{12} are covalently bonded together and to the nitrogen to which they are both attached to form a 5, 6 or 7-membered saturated heterocycle;

the group $-C(=Y^1)-Z$ is covalently linked to either M^2 or M^3 ,

M^1 is CR^{4a} ,

one of M^2 and M^3 is CR^5 ,

M^4 is CR^{4b} ,

| ~~and in addition one or two of the groups selected from M^1 , M^2 , M^3 and M^4 may also be N, with the proviso that the group M^2 or M^3 to which $-C(=Y^1)-Z$ is linked is an C atom,~~

Y^1 is O or S;

Z is defined as $NR^{N2}-SO_2-R^C$, wherein R^C is optionally substituted with R^{60} ;

R^2 is selected from: halogen or R^{21} , wherein R^{21} is aryl or Het, said R^{21} is optionally substituted with R^{150} ;

R^3 is selected from (C_{1-6})alkyl, (C_{3-7})cycloalkyl, (C_{1-3})alkyl-(C_{3-7})cycloalkyl, (C_{5-7})cycloalkenyl, (C_{1-3})alkyl-(C_{5-7})cycloalkenyl, (C_{6-10})bicycloalkyl, (C_{1-3})alkyl-(C_{6-10})bicycloalkyl, (C_{6-10})bicycloalkenyl, (C_{1-3})alkyl-(C_{6-10})bicycloalkenyl, **HCy** or (C_{1-3})alkyl-**HCy**, wherein **HCy** is a saturated or unsaturated 4 to 7-membered heterocyclic group with 1 to 3 heteroatoms selected from O, S and N; said alkyl, cycloalkyl, cycloalkenyl, bicycloalkyl, bicycloalkenyl, **HCy** and alkyl-**HCy** being optionally substituted with from 1 to 4 substituents selected from: a) halogen; b) (C_{1-6})alkyl optionally substituted with:
- OR^{31} or SR^{31} wherein R^{31} is H, (C_{1-6})alkyl, (C_{3-7})cycloalkyl or (C_{1-3})alkyl-(C_{3-7})cycloalkyl; or
- $N(R^{32})_2$ wherein each R^{32} is independently H, (C_{1-6})alkyl, (C_{3-7})cycloalkyl or (C_{1-3})alkyl-(C_{3-7})cycloalkyl; or both R^{32} are covalently bonded together and to the nitrogen to which they are attached to form a 5, 6 or 7-membered saturated heterocycle;
c) OR^{33} or SR^{33} wherein R^{33} is H, (C_{1-6})alkyl, (C_{3-7})cycloalkyl or (C_{1-3})alkyl-(C_{3-7})cycloalkyl;
d) $N(R^{35})_2$ wherein each R^{35} is independently H, (C_{1-6})alkyl, (C_{3-7})cycloalkyl or (C_{1-3})alkyl-(C_{3-7})cycloalkyl; or both R^{35} are covalently bonded together and to the nitrogen to which they are attached to form a 5, 6 or 7-membered saturated heterocycle;

R^{4a} , R^{4b} , R^5 each are independently H or defined as R^{150} ;

R^{60} is defined as 1 to 4 substituents independently selected from:

- 1 to 3 substituents selected from halogen;
- one of each substituent selected from: $OP(O)_3H$, NO_2 , cyano, azido, $C(=NH)NH_2$, $C(=NH)NH(C_{1-6})alkyl$ or $C(=NH)NHCO(C_{1-6})alkyl$, SO_3H ; and
- 1 to 3 substituents selected from:
 - a) (C_{1-6}) alkyl, (C_{3-7})cycloalkyl, C_{3-7} spirocycloalkyl optionally containing 1 or 2 heteroatom selected from N, O and S; (C_{2-6})alkenyl, (C_{2-8})alkynyl, (C_{1-6})alkyl-(C_{3-7})cycloalkyl, all of which optionally being substituted with R^{150} ;
 - b) OR^0 ;
 - c) $OC(O)R^0$;

AMENDMENT
U.S. Appln. No. 10/755,544

- d) SR^0 , SO_2R^C , $SO_2N(R^{N2})R^{N1}$, $SO_2N(R^{N2})C(O)R^C$ or $CONR^{N2}SO_2R^C$;
- e) $N(R^{N2})R^{N1}$, $N(R^{N2})COOR^C$ or $N(R^{N2})SO_2R^C$;
- f) $N(R^{N2})COR^C$;
- g) $N(R^{N3})CON(R^{N2})R^{N1}$;
- h) $N(R^{N3})COCOR^C$, $N(R^{N3})COCOOR^O$ or $N(R^{N3})COCON(R^{N2})R^{N1}$;
- i) COR^O ;
- j) $COOR^O$;
- k) $CON(R^{N2})R^{N1}$;
- l) aryl, Het, (C₁₋₄alkyl)aryl or (C₁₋₄alkyl)Het, all of which optionally being substituted with R^{150} ;

wherein said R^{N1} , R^C and/or R^O are optionally substituted with R^{150} as defined,

R^{150} is defined as 1 to 4 substituents independently selected from:

- 1 to 3 substituents selected from halogen;
- one of each substituent selected from: OPO_3H , NO_2 , cyano, azido, $C(=NH)NH_2$, $C(=NH)NH(C_{1-6})alkyl$ or $C(=NH)NHCO(C_{1-6})alkyl$; and
- 1 to 3 substituents selected from:
 - a) (C₁₋₆) alkyl, (C₃₋₇)cycloalkyl, C₃₋₇ spirocycloalkyl optionally containing 1 or 2 heteroatoms selected from N, O and S; (C₂₋₆)alkenyl, (C₂₋₈)alkynyl, (C₁₋₃) alkyl-(C₃₋₇)cycloalkyl, all of which optionally substituted with R^{160} ;
 - b) OR^O ;
 - c) $OC(O)R^O$;
 - d) SR^0 , SO_2R^C , $SO_2N(R^{N2})R^{N1}$ or $SO_2N(R^{N2})C(O)R^C$;
 - e) $N(R^{N2})R^{N1}$, $N(R^{N2})COOR^C$ or $N(R^{N2})SO_2R^C$;
 - f) $N(R^{N2})COR^C$;
 - g) $N(R^{N3})CON(R^{N2})R^{N1}$;
 - h) $N(R^{N3})COCOR^C$, $N(R^{N3})COCOOR^O$ or $N(R^{N3})COCON(R^{N2})R^{N1}$;
- wherein R^{N1} is as defined or OH, OAlkyl;
- i) COR^O ;
- j) $COOR^O$;
- k) tetrazole or $CON(R^{N2})R^{N1}$;

wherein said R^{N1} , R^C and/or R^O are optionally substituted with R^{160} as defined;

R^{160} is defined as 1, 2 or 3 substituents independently selected from:

- 1, 2 or 3 fluorine substituents; and
- one of each substituent selected from tetrazole, chlorine, bromine, iodine, CN, nitro, C₁₋₄alkyl, CF_3 , $COOR^{161}$, SO_3H , SR^{161} , SO_2R^{163} , OR^{161} , $N(R^{162})_2$, $SO_2N(R^{162})_2$,

AMENDMENT

U.S. Appln. No. 10/755,544

$\text{SO}_2\text{NR}^{162}\text{COR}^{162}$, $\text{NR}^{162}\text{SO}_2\text{R}^{163}$, $\text{NR}^{162}\text{COR}^{162}$ or $\text{CON}(\text{R}^{162})_2$, wherein R^{161} , R^{163} and each R^{162} is independently $(\text{C}_{1-4})\text{alkyl}$, $(\text{C}_{3-7})\text{cycloalkyl}$ or $(\text{C}_{1-3})\text{alkyl}-(\text{C}_{3-7})\text{cycloalkyl}$; and R^{161} and each R^{162} may each independently also be H; or both R^{162} are covalently bonded together and to the nitrogen to which they are attached to form a 5, 6 or 7-membered saturated heterocycle;

R^0 , R^c are independently defined as $(\text{C}_{1-6})\text{alkyl}$, $(\text{C}_{3-6})\text{cycloalkyl}$, $(\text{C}_{1-4})\text{alkyl}-(\text{C}_{3-6})\text{cycloalkyl}$, $(\text{C}_{2-6})\text{alkenyl}$, aryl, **Het**, $(\text{C}_{1-4})\text{alkyl-aryl}$, $(\text{C}_{1-4})\text{alkyl-Het}$;

R^{N1} is H, $(\text{C}_{1-6})\text{alkyl}$, $(\text{C}_{3-7})\text{cycloalkyl}$, $(\text{C}_{1-4})\text{alkyl}-(\text{C}_{3-6})\text{cycloalkyl}$, $(\text{C}_{2-6})\text{alkenyl}$, aryl, **Het**, $(\text{C}_{1-4})\text{alkyl-aryl}$, $(\text{C}_{1-4})\text{alkyl-Het}$; or

R^{N2} , R^{N3} , R^{N4} are independently H, CH_3 , $(\text{C}_{2-6}\text{alkyl})$, $(\text{C}_{3-6})\text{cycloalkyl}$, $(\text{C}_{1-4})\text{alkyl}-(\text{C}_{3-6})\text{cycloalkyl}$; all of which being optionally substituted with halogen, carboxy or $\text{C}_{1-6}\text{-alkoxycarbonyl}$; and/or wherein said alkyl, cycloalkyl or alkylcycloalkyl is optionally substituted with hydroxy, $\text{C}_{1-6}\text{-alkyl}$, $\text{C}_{1-6}\text{-alkoxy}$, amino, $-\text{NH}(\text{C}_{1-4}\text{-alkyl})$ and/or $-\text{N}(\text{C}_{1-4}\text{-alkyl})_2$; and

in the case

- a) of a group $\text{N}(\text{R}^{N2})\text{R}^{N1}$ the substituents R^{N2} and R^{N1} ; or
- b) of a group $\text{NR}^{N3}-\text{N}(\text{R}^{N2})\text{R}^{N1}$ the substituents R^{N3} and R^{N1} , or R^{N2} and R^{N1} ;

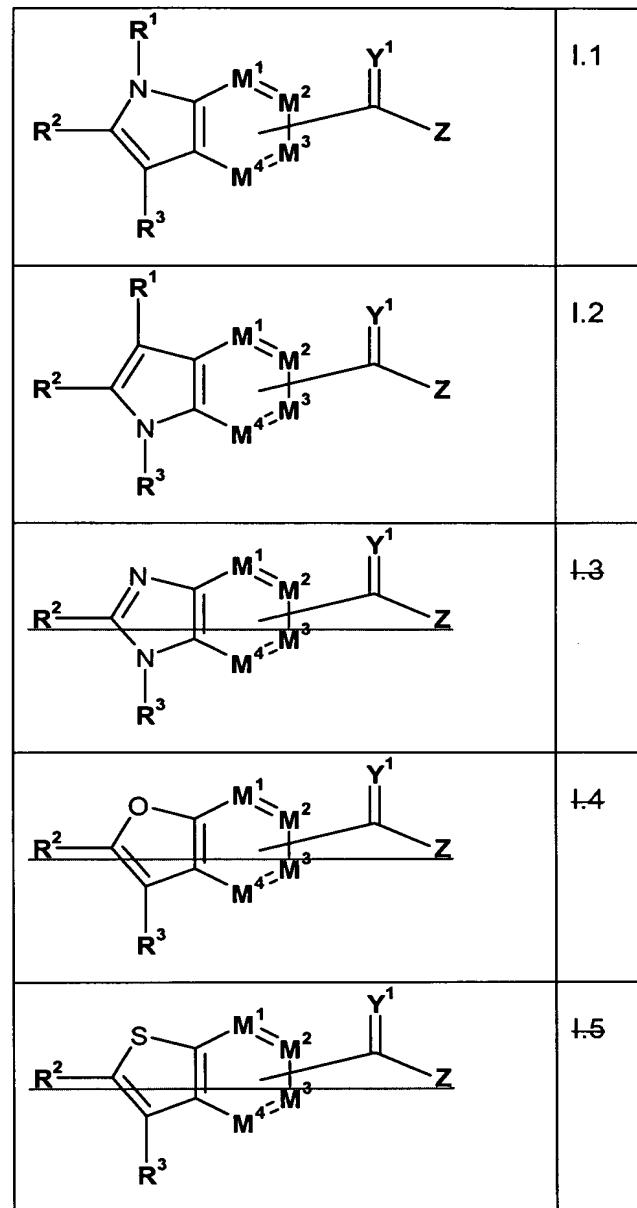
may be covalently bonded together to form a 4-, 5-, 6- or 7-membered saturated or unsaturated N-containing heterocycle or a 8-, 9-, 10- or 11-membered N-containing heterobicycle each may have additionally from 1 to 3 heteroatoms selected from O, N, and S, wherein said heterocycle or heterobicycle is optionally substituted as defined;

wherein **Het** is defined as a 4-, 5-, 6- or 7-membered heterocycle having 1 to 4 heteroatoms selected from O, N and S, or a 8-, 9-, 10- or 11-membered heterobicycle having 1 to 5 heteroatoms selected from O, N and S;

or a salt thereof.

3. (currently amended) The compound according to claim 1 selected from the group of formulas I.1 to I.5 and I.2

AMENDMENT
U.S. Appln. No. 10/755,544



wherein R^1 , R^2 , R^3 , Y^1 , Z , M^1 , M^2 , M^3 and M^4 are defined as in claim 1.

4. (original) The compound according to claim 1, wherein \mathbf{R}^1 is selected from the group consisting of: H and (C₁₋₆)alkyl.

5. (original) The compound according to claim 4, wherein \mathbf{R}^1 is H, CH₃, ethyl, or isobutyl.

AMENDMENT
U.S. Appln. No. 10/755,544

6. (original) The compound according to claim 5, wherein R^1 is H or CH_3 .

7. (original) The compound according to claim 6, wherein R^1 is CH_3 .

8. (original) The compound according to claim 1, wherein Y^1 is O.

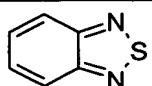
9. (original) The compound according to claim 1, wherein Z is $NR^{N3}-SO_2-N(R^{N2})R^{N1}$, wherein R^{N1} or any heterocycle formed by R^{N1} and R^{N2} is optionally substituted with R^{60} , and wherein R^{N3} , R^{N2} , R^{N1} and R^{60} are defined as in claim 1.

10. (original) The compound according to claim 1, wherein Z is $NR^{N2}-SO_2-R^C$, wherein R^C is optionally substituted with R^{60} , and wherein **Het**, R^{N2} , R^C and R^{60} are defined as in claim 1.

11. (original) The compound according to claim 10, wherein Z is $NH-SO_2-R^C$, wherein R^C is selected from the group consisting of $(C_{1-6})alkyl$, $(C_{3-6})cycloalkyl$, $(C_{1-3})alkyl-(C_{3-6})cycloalkyl$, $(C_{2-6})alkenyl$, phenyl, naphthyl, **Het**, $(C_{1-3})alkyl-phenyl$, $(C_{1-3})alkyl-naphthyl$, $(C_{1-3})alkyl-Het$, wherein said alkyl, cycloalkyl, alkyl-cycloalkyl, alkenyl, phenyl, naphthyl, **Het**, alkyl-phenyl, alkyl-naphthyl, or alkyl-**Het**, are all optionally substituted with 1 to 4 substituents selected from R^{60} , wherein R^{60} and **Het** are defined as in claim 10.

12. (original) The compound according to claim 11, wherein Z is $NH-SO_2-R^C$, wherein R^C is selected from the group consisting of methyl, ethyl, n-propyl, i-propyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, pyrrolidine, piperidine, morpholine, thiomorpholine, piperazine, phenyl, naphthyl, benzyl, thiophene, furan, pyrrole, imidazole, pyrazole, oxazole, isoxazole, thiazole, pyridazine, pyrimidine, pyrazine, diazepine, azepine, quinoline, isoquinoline, benzofuran, benzothiophene, benzothiazole, purine, pteridine,

2,1,3-benzothiadiazole



, and

Imidazo[2,1-B][1,3]thiazole		;
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all of which are optionally substituted with 1 to 3 substituents selected from \mathbf{R}^{60} ,
wherein \mathbf{R}^{60} is defined as in claim 11.

13. (original) The compound according to claim 1, wherein \mathbf{R}^2 is \mathbf{R}^{21} , wherein \mathbf{R}^{21} is
phenyl or **Het** selected from the group of formulas

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and wherein said \mathbf{R}^{21} is unsubstituted or substituted with \mathbf{R}^{150} , being defined as in
claim 1.

AMENDMENT

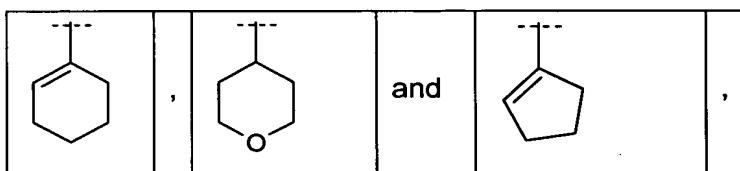
U.S. Appln. No. 10/755,544

14. (original) The compound according to claim 1, wherein \mathbf{R}^2 is \mathbf{R}^{21} , wherein \mathbf{R}^{21} is defined as in claim 1, and wherein \mathbf{R}^{21} is optionally substituted with 1, 2 or 3 substituents selected from:

- 1 to 3 substituents selected from halogen;
- one of each substituent selected from: NO_2 , cyano, azido; and
- 1 to 2 substituents selected from:
 - a) $(\text{C}_{1-4})\text{alkyl}$ or $(\text{C}_{1-4})\text{alkoxy}$, both optionally substituted with OH , $\text{O}(\text{C}_{1-4})\text{alkyl}$, $\text{SO}_2(\text{C}_{1-4})\text{alkyl}$, 1 to 3 halogen atoms, amino, $\text{NH}(\text{C}_{1-4})\text{alkyl}$ or $\text{N}((\text{C}_{1-4})\text{alkyl})_2$;
 - b) $\text{NR}^{111}\mathbf{R}^{112}$ wherein both \mathbf{R}^{111} and \mathbf{R}^{112} are independently H , $(\text{C}_{1-4})\text{alkyl}$, or \mathbf{R}^{112} is $(\text{C}_{3-7})\text{cycloalkyl}$, $(\text{C}_{1-3})\text{alkyl}(\text{C}_{3-7})\text{cycloalkyl}$, phenyl, benzyl; or both \mathbf{R}^{111} and \mathbf{R}^{112} are covalently bonded together and to the nitrogen to which they are attached to form a nitrogen-containing heterocycle, each of said alkyl, cycloalkyl, alkylcycloalkyl, phenyl and benzyl, being optionally substituted with halogen or:
 - OR^{2h} or $\text{N}(\mathbf{R}^{2h})_2$, wherein each \mathbf{R}^{2h} is independently H , $(\text{C}_{1-4})\text{alkyl}$, or both \mathbf{R}^{2h} are covalently bonded together and to the nitrogen to which they are attached to form a nitrogen-containing heterocycle;
 - c) NHCOR^{117} wherein \mathbf{R}^{117} is $(\text{C}_{1-4})\text{alkyl}$, $\text{O}(\text{C}_{1-4})\text{alkyl}$ or $\text{O}(\text{C}_{3-7})\text{cycloalkyl}$; and
 - e) CONH_2 , $\text{CONH}(\text{C}_{1-4})\text{alkyl}$, $\text{CON}((\text{C}_{1-4})\text{alkyl})_2$.

15. (original) The compound according to claim 1, wherein \mathbf{R}^3 is selected from $(\text{C}_{3-7})\text{cycloalkyl}$, $(\text{C}_{5-7})\text{cycloalkenyl}$, $(\text{C}_{6-10})\text{bicycloalkyl}$, $(\text{C}_{6-10})\text{bicycloalkenyl}$, or Het , wherein said groups are unsubstituted or mono- or disubstituted by halogen, cyano, nitro, hydroxy, $(\text{C}_{1-4})\text{alkyl}$ and/or $\text{O}-(\text{C}_{1-4})\text{alkyl}$, wherein the alkyl groups may be fluorinated.

16. (original) The compound according to claim 15, wherein \mathbf{R}^3 is cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl or cycloheptyl, or a group selected from



wherein all said groups are unsubstituted or substituted by fluorine, $(\text{C}_{1-3})\text{alkyl}$ or CF_3 .

AMENDMENT
U.S. Appln. No. 10/755,544

17. (original) The compound according to claim 16, wherein R^3 is cyclopentyl or cyclohexyl.

18. (original) The compound according to claim 1 wherein R^{4a} , R^{4b} , R^5 each are independently H, hydroxy, halogen, cyano, nitro, carboxyl, $(C_{1-4})alkyl$, CF_3 , $(C_{1-4})alkoxy$, $-O-(C_{3-7})cycloalkyl$, $-O-(C_{1-3})alkyl-(C_{3-7})cycloalkyl$, $-O-aryl$, $-O-(C_{1-3})alkyl-aryl$, $-O-Het$, $-O-(C_{1-3})alkyl-Het$, $NR^{N1}R^{N2}$, COR^O , $NR^{N2}COR^C$, $CONR^{N2}R^{N1}$, or $NR^{N3}CONR^{N1}R^{N2}$; wherein **Het**, R^C , R^O , R^{N1} , R^{N2} , R^{N3} and R^{160} are as defined in claim 1; and wherein all said alkyl groups, including alkoxy, may be mono-, di- or trisubstituted by fluorine or mono-substituted by chlorine or bromine.

19. (original) The compound according to claim 18 wherein R^C , R^O and R^{N1} are independently of each other H, $(C_{1-4})alkyl$, aryl, $(C_{1-3})alkyl-aryl$; wherein aryl is defined as phenyl optionally substituted with R^{160} , wherein R^{160} is defined as in claim 18; and wherein all said alkyl groups may be mono-, di- or trisubstituted by fluorine or mono-substituted by chlorine or bromine; and wherein R^{N2} and R^{N3} are independently H or methyl.

20. (original) The compound according to claim 18 wherein R^{4a} , R^{4b} , R^5 each are independently H, hydroxy, halogen, cyano, nitro, methyl, CF_3 , methoxy, carboxy, amino, $-NMe_2$, $-CONH_2$, $-NHCONH_2$, $-CO-NHMe$, $-NHCONHMe$, $-CO-NMe_2$ or $-NHCONMe_2$.

21. (original) The compound according to claim 20 wherein R^{4a} , R^{4b} , R^5 each are H, methyl or methoxy.

22. (original) The compound according to claim 1 wherein R^{4a} is H or methyl.

23. (original) The compound according to claim 1 wherein at least two of the substituents selected from R^{4a} , R^{4b} , R^5 are H.

AMENDMENT
U.S. Appln. No. 10/755,544

24. (original) The compound according to claim 1, wherein \mathbf{R}^{60} is each defined as 1 to 4 substituents independently selected from:

- 1 to 3 substituents selected from halogen;
- one of each substituent selected from: NO_2 , cyano, azido; and
- 1 to 3 substituents selected from:
 - a) $(\text{C}_{1-4})\text{alkyl}$, $(\text{C}_{3-7})\text{cycloalkyl}$, $(\text{C}_{2-4})\text{alkenyl}$, $(\text{C}_{2-4})\text{alkynyl}$, $(\text{C}_{1-3})\text{alkyl}-(\text{C}_{3-7})\text{cycloalkyl}$, all of which optionally being substituted with \mathbf{R}^{150} ;
 - b) OR^0 ;
 - c) $\text{N}(\mathbf{R}^{N2})\mathbf{R}^{N1}$;
 - d) $\text{N}(\mathbf{R}^{N2})\text{COR}^c$;
 - e) COOR^0 ;
 - f) $\text{CON}(\mathbf{R}^{N2})\mathbf{R}^{N1}$;
 - g) phenyl, **Het**, $(\text{C}_{1-3}\text{alkyl})\text{phenyl}$ or $(\text{C}_{1-3}\text{alkyl})\text{Het}$; wherein **Het** is selected from furan, tetrahydrofuran, thiophene, tetrahydrothiophene, tetrahydropyran, pyridinyl, azetidine, pyrrolidine, piperidine, piperazine, morpholine, thiomorpholine, homopiperidine and homopiperazine, all of which optionally being substituted with \mathbf{R}^{150} ;

wherein said \mathbf{R}^{N1} , \mathbf{R}^c and/or \mathbf{R}^0 are optionally substituted with \mathbf{R}^{150} as defined, and \mathbf{R}^{150} , \mathbf{R}^{N1} , \mathbf{R}^{N2} , \mathbf{R}^c and \mathbf{R}^0 are defined as in claim 1.

25. (original) The compound according to claim 1, wherein

\mathbf{R}^{150} is defined as 1 to 4 substituents independently selected from:

- 1 to 3 fluorine-substituents;
- one of each substituent selected from: chlorine, bromine, iodine, NO_2 , cyano, azido; and
- 1 to 3 substituents selected from:
 - a) $(\text{C}_{1-3})\text{alkyl}$, CF_3 , $(\text{C}_{3-6})\text{cycloalkyl}$, $(\text{C}_{1-3})\text{alkyl}-(\text{C}_{3-6})\text{cycloalkyl}$, all of which optionally substituted with \mathbf{R}^{160} ;
 - b) OR^0 ;
 - c) $\text{N}(\mathbf{R}^{N2})\mathbf{R}^{N1}$;
 - d) $\text{N}(\mathbf{R}^{N2})\text{COR}^c$;
 - e) COOR^0 ;
 - f) $\text{CON}(\mathbf{R}^{N2})\mathbf{R}^{N1}$;

wherein said \mathbf{R}^{N1} , \mathbf{R}^c and/or \mathbf{R}^0 are optionally substituted with \mathbf{R}^{160} as defined; and \mathbf{R}^{160} , \mathbf{R}^{N1} , \mathbf{R}^{N2} , \mathbf{R}^c and \mathbf{R}^0 are defined as in claim 1.

26. (original) The compound according to claim 1, wherein

R^{160} is defined as 1, 2 or 3 substituents independently selected from:

- 1, 2 or 3 fluorine substituents; and
- one of each substituent selected from chlorine, bromine, iodine, CN, nitro, methyl, trifluoromethyl, ethyl, n-propyl, i-propyl, COOH, COOCH₃, OH, OCH₃, OCF₃, NH₂, NHCH₃, N(CH₃)₂, SO₂NH₂, SO₂NHCOCH₃, NHCOCH₃ or CONH₂, CONHCH₃ and CON(CH₃)₂.

27. (original) The compound according to claim 1, wherein

R^0 , R^c are independently defined as (C₁₋₄)alkyl, (C₃₋₆)cycloalkyl, (C₁₋₃)alkyl-(C₃₋₆)cycloalkyl, phenyl, benzyl, **Het**, (C₁₋₃)alkyl-**Het**; all of which are optionally substituted as defined; and R^0 may also be H;

R^{N1} is H, (C₁₋₄)alkyl, (C₃₋₆)cycloalkyl, (C₁₋₃)alkyl-(C₃₋₆)cycloalkyl, phenyl, benzyl, phenylethyl, **Het**, (C₁₋₃)alkyl-**Het**; wherein said alkyl, cycloalkyl, alkyl-cycloalkyl, phenyl, benzyl, phenylethyl, **Het** and alkyl-**Het** are optionally substituted as defined; or

R^{N2} , R^{N3} , R^{N4} are independently H, methyl, ethyl, n-propyl, i-propyl, cyclopropyl, cyclopropylmethyl; all of which being optionally substituted with fluorine, carboxy or methoxycarbonyl; and/or wherein said ethyl, n-propyl or i-propyl is optionally substituted with hydroxy, methyl, methoxy, amino, -NH(CH₃) and/or -N(CH₃)₂; and

in the case

- a) of a group N(R^{N2}) R^{N1} the substituents R^{N2} and R^{N1} or
- b) of a group NR^{N3}-N(R^{N2}) R^{N1} the substituents R^{N3} and R^{N1} or R^{N2} and R^{N1} may be covalently bonded together to form a 5-, 6- or 7-membered saturated heterocycle which may have additionally one heteroatom selected from O, N, and S, wherein said heterocycle is optionally substituted as defined;

wherein **Het** is defined as in claim 1.

AMENDMENT
U.S. Appln. No. 10/755,544

28. (currently amended) Use of~~A~~ method of inhibiting HCV polymerase activity comprising contacting an HCV polymerase with a compound of the formula I according to claim 1, or a pharmaceutically acceptable salt thereof, as an inhibitor of HCV polymerase.

29. (currently amended) Use of~~A~~ method of inhibiting the RNA dependent RNA polymerase activity of the enzyme NS5B, encoded by HCV, comprising contacting the enzyme NS5B, encoded by HCV, with ~~a~~ compound of the formula I according to claim 1, or a pharmaceutically acceptable salt thereof, as an inhibitor of RNA dependent RNA polymerase activity of the enzyme NS5B, encoded by HCV.

30. (currently amended) Use of~~A~~ method of inhibiting the replication of the Hepatitis C virus comprising contacting the Hepatitis C virus with a compound of the formula I according to claim 1, or a pharmaceutically acceptable salt thereof, as an inhibitor of HCV replication.

31. (original) A method of treating or preventing HCV infection in a mammal, comprising administering to the mammal an effective amount of a compound of formula I according to claim 1, or a pharmaceutically acceptable salt thereof.

32. (currently amended) A method of treating or preventing HCV infection in a mammal, comprising administering to the mammal an effective amount of a combination of a compound of formula I according to claim 1, or a pharmaceutically acceptable salt thereof, in combination with another antiviral agent.

33. (original) A pharmaceutical composition for the treatment or prevention of HCV infection, comprising an effective amount of a compound of formula I according to claim 1, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

34. (currently amended) The composition according to claim 33 further comprising a therapeutically effective amount of one or more other antiviral agents.

AMENDMENT
U.S. Appln. No. 10/755,544

35. (original) The composition according to claim 34, wherein said antiviral agent is selected from: ribavirin and amantadine.

36. (original) The composition according to claim 34 wherein the antiviral agent is an other anti-HCV agent.

37. (currently amended) The pharmaceutical composition according to claim 36, wherein the other anti-HCV agent is an immunomodulatory agent, ~~in particular selected from β , δ , γ , and ω interferon.~~

38. (currently amended) A composition according to claim 36, wherein said the other anti-HCV agent is another inhibitor of HCV polymerase.

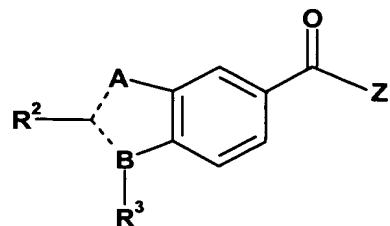
39. (original) The composition according to claim 36, wherein the other anti-HCV agent is an inhibitor of HCV NS3 protease.

40. (original) The composition according to claim 36, wherein the other anti-HCV agent is an inhibitor of another target in the HCV life cycle.

41. (original) A composition according to claim 40, wherein said inhibitor of another target in the HCV life cycle is an agent that inhibits a target selected from HCV helicase, HCV NS2/3 protease and HCV IRES.

42. (cancelled)

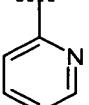
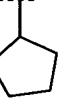
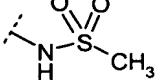
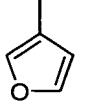
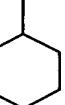
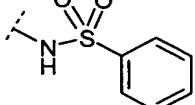
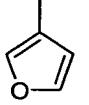
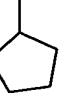
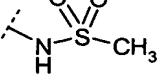
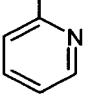
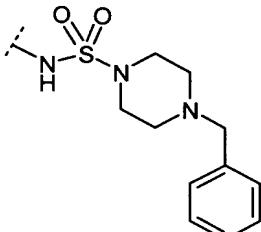
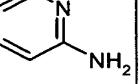
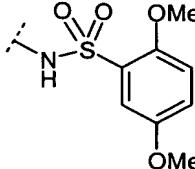
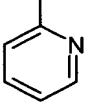
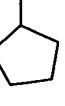
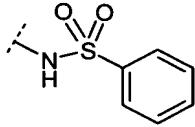
43. (new) A compound of the following formula:



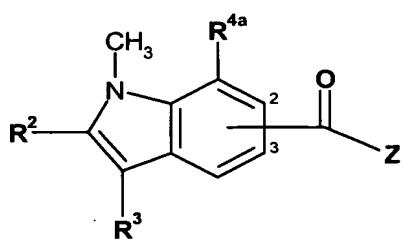
wherein A, B, R², R³ and Z are as defined in the following table:

Cpd. #	A	B	R ²	R ³	Z
101	-N(CH ₃)-	=C-			
114	-N(CH ₃)-	=C-			
115	-N(CH ₃)-	=C-			
116	-N(CH ₃)-	=C-			
117	-N(CH ₃)-	=C-			
118	=C(CH ₃)-	-N-			
119	=C(CH ₃)-	-N-			

AMENDMENT
U.S. Appln. No. 10/755,544

Cpd. #	A	B	R ²	R ³	Z
123	-N(CH ₃)-	=C-			
124	-NH-	=C-			
125	-NH-	=C-			
126	-N(CH ₃)-	=C-			
127	=C(CH ₃)-	-N-			
129	-N(CH ₃)-	=C-			

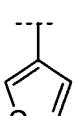
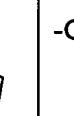
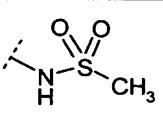
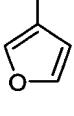
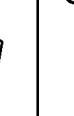
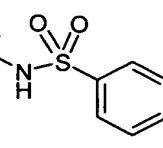
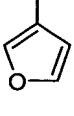
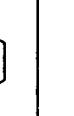
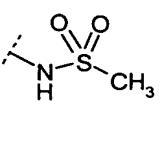
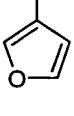
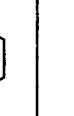
44. (new) A compound of the following formula:



AMENDMENT

U.S. Appln. No. 10/755,544

wherein R², R³, R^{4a}, p and Z are as defined in the following table, wherein p designates the C-atom on the benzene ring to which the group C(=O)-Z is bonded:

Cpd. #	R ²	R ³	R ^{4a}	p	Z
201			-OCH ₃	2	
202			-OCH ₃	2	
203			-H	3	
204			-H	3	